

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 62420A	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/US 03/30380	International filing date (day/month/year) 26.09.2003	Priority date (day/month/year) 15.10.2002
International Patent Classification (IPC) or both national classification and IPC C07F9/6574		
Applicant UNION CARBIDE CHEMICALS & PLASTICS TECHNOLOGY CORP		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 4 sheets, including this cover sheet.

☒ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 1 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the opinion
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand  12.04.2004	Date of completion of this report  01.02.2005
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer  Ousset, J-B  Telephone No. +49 89 2399-8271



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/US 03/30380

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-29 as originally filed

**Claims, Numbers**

1-46 as originally filed

47 received on 30.08.2004 with letter of 30.08.2004

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).  
☐ the language of publication of the international application (under Rule 48.3(b)).  
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.  
☐ filed together with the international application in computer readable form.  
☐ furnished subsequently to this Authority in written form.  
☐ furnished subsequently to this Authority in computer readable form.  
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.  
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes: Claims	47
	No: Claims	1-46
Inventive step (IS)	Yes: Claims	
	No: Claims	1-47
Industrial applicability (IA)	Yes: Claims	1-47
	No: Claims	

**2. Citations and explanations**

**see separate sheet**

SECTION V

1). Relevant prior art is represented by:

D1: EP-A-1 201 675 (OXENO OLEFINCHEMIE GMBH) 2 May 2002 (2002-05-02)

2). The claimed matter is not novel vis-à-vis the disclosure of D1 (see claim 9). The compounds of claim 9 correspond to the claimed compounds in which the group "W" is the formula (III) with X is phenyl.

3). D1 represents the closest prior art, since it discloses ligands to be used in catalysts for hydroformylation.

The problem underlying the current application appears to be the provision of further chelating ligands to be used in catalysts.

Table 1 on page 28 of the description shows that this problem has been solved by at least the tested compounds and a reasonable generalisation thereof.

The skilled reader does not need any inventive skills to reproduce the teaching of D1 to arrive at the claimed compounds, since D1 makes available compounds falling within the claimed scope.

Inventive step is not acknowledged.

4). There is no objection with regard to industrial applicability.

47. The process of Claim 1 wherein W is selected from formulas II, IV, and V.